



[4910-13-P]

**DEPARTMENT OF TRANSPORTATION**

**Federal Aviation Administration**

**14 CFR Part 39**

**[Docket No. FAA-2016-1363; Directorate Identifier 2015-CE-040-AD]**

**RIN 2120-AA64**

**Airworthiness Directives; Mitsubishi Heavy Industries, Ltd. Airplanes**

**AGENCY:** Federal Aviation Administration (FAA), Department of Transportation (DOT).

**ACTION:** Notice of proposed rulemaking (NPRM).

**SUMMARY:** We propose to adopt a new airworthiness directive (AD) for certain Mitsubishi Heavy Industries, Ltd. Models MU-2B-30, MU-2B-35, MU-2B-36, MU-2B-36A, and MU-2B-60 airplanes. This proposed AD results from mandatory continuing airworthiness information (MCAI) originated by an aviation authority of another country to identify and correct an unsafe condition on an aviation product. The MCAI describes the unsafe condition as reports of cracks found in the attach fittings of the main landing gear oleo strut. We are issuing this proposed AD to require actions to address the unsafe condition on these products.

**DATES:** We must receive comments on this proposed AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**ADDRESSES:** You may send comments by any of the following methods:

- Federal eRulemaking Portal: Go to <http://www.regulations.gov>. Follow the instructions for submitting comments.
- Fax: (202) 493-2251.
- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue, SE, Washington, DC 20590.

- Hand Delivery: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue, SE, Washington, DC 20590, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this proposed AD, contact Mitsubishi Heavy Industries America, Inc., c/o Turbine Aircraft Services, Inc., 4550 Jimmy Doolittle Drive, Addison, Texas 75001; telephone: (972) 248-3108, ext. 209; fax: (972) 248-3321; Internet: <http://mu-2aircraft.com>. You may review this referenced service information at the FAA, Small Airplane Directorate, 901 Locust, Kansas City, Missouri 64106. For information on the availability of this material at the FAA, call (816) 329-4148.

#### **Examining the AD Docket**

You may examine the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2016-1363; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this proposed AD, the regulatory evaluation, any comments received, and other information. The street address for the Docket Office (telephone (800) 647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

**FOR FURTHER INFORMATION CONTACT:** Andrew McAnaul, Aerospace Engineer, FAA, ASW-143 (c/o San Antonio MIDO), 10100 Reunion Place, Suite 650, San Antonio, Texas 78216; phone: (210) 308-3365; fax: (210) 308-3370; email: [andrew.mcanaul@faa.gov](mailto:andrew.mcanaul@faa.gov).

## **SUPPLEMENTARY INFORMATION:**

### **Comments Invited**

We invite you to send any written relevant data, views, or arguments about this proposed AD. Send your comments to an address listed under the ADDRESSES section. Include “Docket No. FAA-2016-1363; Directorate Identifier 2015-CE-040-AD” at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this proposed AD. We will consider all comments received by the closing date and may amend this proposed AD because of those comments.

We will post all comments we receive, without change, to <http://regulations.gov>, including any personal information you provide. We will also post a report summarizing each substantive verbal contact we receive about this proposed AD.

### **Discussion**

The Japan Civil Aviation Bureau (JCAB), which is the aviation authority for Japan, has issued AD No. TCD-8595-2015, dated July 1, 2015 (referred to after this as “the MCAI”), to correct an unsafe condition for certain Mitsubishi Heavy Industries, Ltd. (MHI) Models MU-2B-30, MU-2B-35, and MU-2B-36 airplanes. You may examine the MCAI on the Internet at <http://www.regulations.gov> by searching for and locating it in Docket No. FAA-2016-1363.

We have received reports of seven failures of the main landing gear oleo strut attach fitting on certain MHI Models MU-2B-30, MU-2B-35, MU-2B-36, MU-2B-36A, and MU-2B-60 airplanes. Investigation revealed that the failures resulted from improper lubrication and/or hard landings, which caused cracks to develop in the main landing gear oleo strut attach fitting.

Japan is the State of Design for MHI Models MU-2B-30, MU-2B-35, and MU-2B-36, which the MCAI AD applies to, and the United States is the State of Design for MHI Models MU-2B-36A and MU-2B-60 airplanes.

**Related Service Information under 1 CFR part 51**

Mitsubishi Heavy Industries, Ltd. has issued MU-2 Service Bulletin No. 243, dated June 30, 2015, and MU-2 Service Bulletin No. 105/32-017, dated September 29, 2015. These service bulletins describe procedures for visually inspecting the lugs of the oleo attach fittings on both sides for cracks, and if any visible cracks are found, replacing with a new fitting. Mitsubishi Heavy Industries, Ltd. has also issued MU-2 Service News JCAB T.C.: No. 171, FAA T.C.: No. 124/32-011, dated April 27, 2012, and MU-2 Service News JCAB T.C.: No. 176, FAA T.C.: No. 128/32-013, dated July 18, 2013. This service information specifies doing repetitive ultrasound inspections of the main landing gear oleo upper attach fittings for cracks and ensuring proper lubrication of the main landing gear oleo fitting. All the related service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section of this NPRM.

**FAA's Determination and Requirements of the Proposed AD**

This product has been approved by the aviation authority of another country, and is approved for operation in the United States. Pursuant to our bilateral agreement with this State of Design Authority, they have notified us of the unsafe condition described in the MCAI and service information referenced above. We are proposing this AD because we evaluated all information and determined the unsafe condition exists and is likely to exist or develop on other products of the same type design.

## **Differences Between this Proposed AD and the MCAI**

We have determined that the repetitive visual inspections specified in the MCAI are not adequate for detecting cracks in the main landing gear oleo strut attach fitting. Repetitive ultrasonic inspections of the main landing gear oleo strut attach fitting have been added into the maintenance requirement manual for these airplanes, which is not considered mandatory in the FAA's airworthiness regulatory system. Therefore, we are proposing to incorporate that requirement through the rulemaking process.

## **Costs of Compliance**

We estimate that this proposed AD will affect 95 products of U.S. registry. We also estimate that it would take about 5 work-hours per product to comply with the visual inspection requirement of this proposed AD. The average labor rate is \$85 per work-hour.

Based on these figures, we estimate the cost of the visual inspection requirements of this proposed AD on U.S. operators to be \$40,375, or \$425 per product.

We also estimate that it would take about 3 work-hours per product to comply with the ultrasound inspection requirements of this proposed AD. The average labor rate is \$85 per work-hour.

Based on these figures, we estimate the cost of the ultrasound inspection requirements of this proposed AD on U.S. operators to be \$24,225, or \$255 per product.

Owner/operators have the option to do an ultrasound inspection in lieu of the required visual inspection.

In addition, we estimate that any necessary follow-on actions would take about 24 work-hours and require parts costing \$5,220, for a cost of \$7,260 per product to replace the left-hand main landing gear oleo strut. We have no way of determining the number of products that may need this action.

In addition, we also estimate that any necessary follow-on actions would take about 45 work-hours and require parts costing \$5,220, for a cost of \$9,045 per product to replace the right-hand main landing gear oleo strut. We have no way of determining the number of products that may need this action.

### **Authority for This Rulemaking**

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. "Subtitle VII: Aviation Programs," describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in "Subtitle VII, Part A, Subpart III, section 44701: General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

### **Regulatory Findings**

We determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify this proposed regulation:

- (1) Is not a "significant regulatory action" under Executive Order 12866,
- (2) Is not a "significant rule" under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979),

(3) Will not affect intrastate aviation in Alaska, and

(4) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

#### **List of Subjects in 14 CFR Part 39**

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

#### **The Proposed Amendment**

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

#### **PART 39 - AIRWORTHINESS DIRECTIVES**

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

#### **§ 39.13 [Amended]**

2. The FAA amends § 39.13 by adding the following new AD:

**Mitsubishi Heavy Industries, Ltd.:** Docket No. FAA-2016-1363; Directorate Identifier 2015-CE-040-AD.

#### **(a) Comments Due Date**

We must receive comments by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

#### **(b) Affected ADs**

None.

#### **(c) Applicability**

This AD applies to Mitsubishi Heavy Industries, Ltd. Models MU-2B-30, MU-2B-35, MU-2B-36 airplanes, serial numbers 502 through 696, except 652 and 661, and Models MU-2B-36A and MU-2B-60 airplanes, serial numbers 661SA, and 697SA through 1569SA, certificated in any category.

**(d) Subject**

Air Transport Association of America (ATA) Code 32: Landing Gear.

**(e) Reason**

This AD was prompted by mandatory continuing airworthiness information (MCAI) originated by an aviation authority of another country to identify and correct an unsafe condition on an aviation product. The MCAI describes the unsafe condition as reports of cracks found in the fittings of the main landing gear oleo strut. We are issuing this proposed AD to prevent failure of the main landing gear oleo strut attach fitting, which could cause the landing gear to fail and result in loss of control.

**(f) Actions and Compliance**

Unless already done, do the following actions:

(1) Within the next 100 hours time-in-service (TIS) after the effective date of this AD or within the next 6 months after the effective date of this AD, whichever occurs first, do a visual inspection of the main landing gear oleo upper attach fittings for cracks. Do the inspection following the INSTRUCTIONS section in Mitsubishi Heavy Industries, Ltd. MU-2 Service Bulletin No. 243, dated June 30, 2015, and the INSTRUCTIONS section in Mitsubishi Heavy Industries, Ltd. MU-2 Service Bulletin No. 105/32-017, dated September 29, 2015, as applicable.

(2) Before further flight after the inspection required in paragraph (f)(1) of this AD, if no signs of cracks are found, lubricate the pin assembly attached to the main landing gear oleo attach fitting as specified in Mitsubishi Heavy Industries, Ltd. MU-2 Service News JCAB T.C.: No. 171, FAA T.C.: No. 124/32-011, dated April 27, 2012.

(3) Within the next 100 hours TIS after doing the initial visual inspection required in paragraph (f)(1) of this AD or within the next 12 months after doing the initial visual inspection required in paragraph (f)(1) of this AD, whichever occurs first, do an ultrasound inspection of the main landing gear oleo upper attach fittings for cracks as specified in Mitsubishi Heavy Industries, Ltd. MU-2 Service News JCAB T.C.: No. 176,



FAA T.C.: No. 128/32-013, dated July 18, 2013. This ultrasound inspection may also be done in place of the visual inspection required in paragraph (f)(1) of this AD if done within the next 100 hours TIS after the effective date of this AD or within the next 6 months after the effective date of this AD, whichever occurs first. Repetitively thereafter inspect every 600 hours TIS or 36 months, whichever occurs first, and any time a hard landing or overweight landing occurs.

(4) Before further flight after any inspection required in paragraph (f)(3) of this AD, if no signs of cracks are found, lubricate the pin assembly attached to the main landing gear oleo attach fitting as specified in Mitsubishi Heavy Industries, Ltd. MU-2 Service News JCAB T.C.: No. 171, FAA T.C.: No. 124/32-011, dated April 27, 2012, and Mitsubishi Heavy Industries, Ltd. MU-2 Service News JCAB T.C.: No. 176, FAA T.C.: No. 128/32-013, dated July 18, 2013.

(5) Before further flight after any inspection required in paragraph (f)(1) and (f)(3) of this AD where cracks are found, replace the main landing gear oleo upper attach fittings following the INSTRUCTIONS section in Mitsubishi Heavy Industries, Ltd. MU-2 Service Bulletin No. 243, dated June 30, 2015, and the INSTRUCTIONS sections in Mitsubishi Heavy Industries, Ltd. MU-2 Service Bulletin No. 105/32-017, dated September 29, 2015, as applicable. After replacement, continue with the repetitive ultrasound inspection requirements of paragraph (f)(3) of this AD.

**(g) Other FAA AD Provisions**

The following provisions also apply to this AD:

(1) **Alternative Methods of Compliance (AMOCs):** The Manager, Standards Office, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. Send information to ATTN: Andrew McAnaul, Aerospace Engineer, FAA, ASW-143 (c/o San Antonio MIDO), 10100 Reunion Place, Suite 650, San Antonio, Texas 78216; phone: (210) 308-3365; fax: (210) 308-3370;

email: [andrew.mcanaul@faa.gov](mailto:andrew.mcanaul@faa.gov). Before using any approved AMOC on any airplane to which the AMOC applies, notify your appropriate principal inspector (PI) in the FAA Flight Standards District Office (FSDO), or lacking a PI, your local FSDO.

(2) **Airworthy Product:** For any requirement in this AD to obtain corrective actions from a manufacturer or other source, use these actions if they are FAA-approved. Corrective actions are considered FAA-approved if they are approved by the State of Design Authority (or their delegated agent). You are required to assure the product is airworthy before it is returned to service.

**(h) Related Information**

Refer to MCAI Japan Civil Aviation Bureau (JCAB) AD No. TCD-8585-2015, dated July 1, 2015, for related information. You may examine the MCAI on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2016-1363. For service information related to this AD, contact Mitsubishi Heavy Industries America, Inc., c/o Turbine Aircraft Services, Inc., 4550 Jimmy Doolittle Drive, Addison, Texas 75001; telephone: (972) 248-3108, ext. 209; fax: (972) 248-3321; Internet: <http://mu-2aircraft.com>. You may review this referenced service information at the FAA, Small Airplane Directorate, 901 Locust, Kansas City, Missouri 64106. For information on the availability of this material at the FAA, call (816) 329-4148.

Issued in Kansas City, Missouri, on January 16, 2016.

Melvin Johnson,  
Acting Manager, Small Airplane Directorate,  
Aircraft Certification Service  
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